

# **HORIZON-BASED RESIDUAL DEPTH MIGRATION VELOCITY ANALYSIS**

## **Abstract**

A method is disclosed for processing seismic data. The method includes prestack depth migrating the seismic data to generate common image gathers using an initial velocity-depth model. Horizons in the migrated seismic data are selected. Residual migration velocity analysis in the depth-offset domain is performed with respect to each selected horizon, and the velocity-depth model is updated based on the residual migration velocity analysis.